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## COST FACTORS IN HOUSING REFORM

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The whole housing movement of today is to be judged not by the amount of philanthropic work done by individuals, organizations or governmental agencies, but by the return in terms of housing facilities that the rentee or individual builder is able to secure for a given investment. Let us analyze the component parts of this investment with a view to separating the creative from the non-creative, and if possible point out the weaknesses of our present system of financing, planning and building homes.

The cost of land, material, labor, capital and maintenance are the factors which determine the character of the homes that are being built. The relation between the supply and demand for homes, while a potent factor in determining the amount of construction and market price, must in the last analysis be reduced to the question of cost. Let us, therefore, consider cost in its various aspects.

### LAND

Land more than any other building factor has a shifting value, aside from its natural value as farm land. It gathers its financial assets, not from any intrinsic qualities, but from its environment. Land values are eminently social products because they represent no labor and depend mainly upon the presence and needs of people for their use. This being the case it is clearly conceivable that those having the greatest share in the creation of the values, the people of the community, should derive the greatest benefits. Land cost, however, is determined by the demand for its use plus the needs of the owner for the cash value. This represents the result of a widespread development of land monopoly by a highly perfected and wholly anti-social system of land speculation which compels the builder to invest in or charge up to land a large and unfair share of the cost of a structure. The share that land claims in the building of homes affects the total amount of capital which it left for planning and building. In other words, in a given total cost of a structure, the

market value of the land determines the investment in the building, thereby affecting the work of buildings and the freedom with which land can be used.

To counteract the influence of land cost, the cities must own land, so that they may fairly compete with the speculator. Zones of building restrictions should be established so as to limit the fluctuation of land values due to social, economic, political or industrial accidents and favoritism and introduce a stability in land values. This will eliminate speculation and return to the honest investor a confidence in the stability of the community which will promote better ideals of home permanency and greater freedom of investment in buildings.

#### MATERIALS

The statement has frequently been made that in the last two thousand years, except for the introduction of steel, there has been no progress in the invention and use of building materials. So far as I am aware this statement has not been and cannot be denied. The question therefore resolves itself to an examination of the factor determining the availability and cost of standard building materials.

Wood will always be the staple element of building since it is the material that invariably becomes a part of the structure and is an accessory in the making of scaffoldings, forms, etc. The United States is becoming more and more deforested and lumber is yearly increasing in price. Lumber being in many sections of the country the most important building material the cost of construction is being enhanced and the character and size of buildings are therefore being perceptibly affected. This results in a rise in rents and as wages do not as a rule keep pace with rents, housing standards go down.

The advocates of conservation of natural resources are clamoring for laws that would preserve and protect our forests. The builders are complaining against the high price of lumber due to monopoly and a shortage of supply while the tariff interferes with free importation of lumber. The failure to heed the demands of the advocates of conservation and the tariff imposed upon lumber render impossible the cheap building of homes and nullify much of the effort towards conservation. A removal of the tariff on lumber would in comparatively few years allow the development of national resources of lumber and make the United States a strong competitor in the lumber

market of the world. The downward revision of the tariff that went into effect last October contains rates which show a recognition of the need for cheaper building materials and protection of the present undeveloped national resources in this country.

Other building materials, like hollow tile, are subject to tariff restrictions that are making monopoly possible with the unavoidable result of high prices. It is also true that the price of wood due to the scarcity of lumber, monopoly and the tariff contribute to a large extent towards the maintenance of high cost of building materials which may be used instead of wood.

One other important and frequently obnoxious difficulty encountered in the reduction of the cost of building materials is due to the building regulations which are generally prepared by men mainly interested in the reduction of the fire risk and guided by false notions of safety. We tolerate fire and safety regulations and restrictions on one general basis and along lines which apply fairly only to a limited number of buildings located in especially crowded sections of our cities and towns and disregard the larger interests of the community as a whole. In many instances, owing to failure to recognize the value of town planning and the failure to calculate the cost of overcrowding in residential districts, we must pay for the undesirable proximity of our neighbors by an increase in the provisions for safety and protection against fire. Scientific facts giving exact data upon which to base regulations dealing with fire prevention are still wanting and the mass of available legislation is inconsistent with the best interests of the people. Careful investigation of the principles of safety and a critical examination of existing laws will undoubtedly result in the overthrow of many theories which have found expression in increased cost and unnecessary restriction.

On the question of safety our urban laws are very specific and much detailed inspection is required to insure the maintenance of the prescribed standard. The regulations are assumed to be based upon generally accepted standards unflinchingly obeyed by both builder and architect. The surprising fact, however, is to be found in the differences of standards used by the same builders and architects in the unregulated districts as compared with those used in localities under strict regulation and inspection. Were the variance in the standards used by the same men small or insignificant the subject would deserve no discussion here. The facts show, however, that building in suburban and rural districts is made considerably

cheaper than in regulated areas and yet the liberties afforded by the unregulated areas present advantages to the most scrupulous and conscientious builders and architects. The question of the fitness of these regulations for dealing with safety must therefore be raised and answered beyond a question. A margin of safety fixed at a point where it will not place unnecessary burdens upon those who in the end must pay for the structure either in direct investments or in rents, is imperative; it should be based, however, on exact scientific facts and should protect the people in the smaller populational centers with the same zeal that it displays in the larger cities.

One of the most striking examples of what appears to be unnecessary discrimination in the matter of materials of construction, on the question of safety, is the almost general restriction placed upon the use of hollow tile in cities. This material is cheap in itself and saves labor when used in construction. That some defects may be found in a few units is not a sufficient reason for its exclusion from use. With the complicated and costly systems of inspection now in use, coupled with additional specifications of the character of tile to be used, its fitness as a building material could be insured beyond a question.

#### LABOR

In the discussion of this factor of the economic aspect of housing I wish to remove from the reader's mind the ordinary conception of the word "labor" and define it as the mental and physical processes that enter into the financing, planning, directing and carrying out of the work of land development and construction. This broad definition represents more fairly the actual labor that should be considered from the point of view of the investment. A classification of labor from the above point of view would be as follows:

Non-creative.....	{	Financing Banking Legal service Promotive	
Creative.....	{	Directive.....	{ Engineering Architecture Administrative Governmental
	{	Executive.....	{ Skilled labor Unskilled labor

*Non-Creative Labor*

This classification indicates at least four functions which are distinctly non-creative. They have nothing to do with the ultimate use value of the structure and present processes necessary under the present *laissez-faire* method of providing housing accommodations which tolerate a cumbersome spoils system of speculative building and places large unproductive financial burdens upon the ultimate occupant of a building.

In European countries, especially in France and Germany, banking and insurance laws have placed special restrictions upon the use of banking and insurance funds. These restrictions give to the wage earner and small private builder the opportunity to secure loans from these institutions without paying exacting and unnecessary fees and without creating a host of middlemen's profits that are not creative and hinder rather than develop the opportunities for home building.

Instead of the promoter, whose standard of proper buildings is to be found in the net profits that he derives and the rapidity with which he sells and shifts responsibility, the community should provide every legitimate facility for individual enterprise. This will result in a better character of building because it will have personality and correspond to the needs of the individual families, rather than to a haphazard standard of shifting averages.

It has been said that "The tasteless man has no right to realize his ideas of a house in the presence of a great multitude of his fellow-beings. It is an indecent exposure of his mind, and should not be permitted." If this is true of the individual building for himself, how infinitely more true it is of the man building for others.

Speculative building as applied to the workingmen's homes is one of the most serious housing evils we have, both on account of its lack of architectural character and because of its economic wastefulness due to a free shifting of responsibility from builder to owner. The disorganized method of the speculative builder leads to overbuilding in certain directions and failure to build in others. This means social waste because of oversupply of certain types of homes and failure to supply others. Speculative building means confusion in the housing market and a consequent social waste resulting from a lack of adjustment between supply and demand. The fact that

only about 17 or 18 per cent of the homes of wage-earners are owned by the occupants, many of which are still carrying mortgages, is very forceful evidence of the futility of speculative building as a means of promoting home ownership. An examination of figures dealing with this aspect of the subject seems to indicate that an average charge of from 25 to 35 per cent of the total cost of a house and land is non-creative investment.

### *Creative Labor*

We have seen that land speculation and non-creative work in connection with promoting building enterprise consume a large although varying share of the investment of the ultimate occupant of the structure. Given a fixed capital to be invested in buildings, most of which are homes, the character of the buildings will be determined by the proportion of this capital that must be invested in non-creative work as compared with the proportion that can be spent in directing and executing the enterprise as well as in the purchase of materials.

The work of governmental control as perceived today, by the restrictive and exacting legislation and inspection, frequently approaches the point of non-creative labor. Governmental work, however, may be made the most potent factor in promoting the interests of proper building and in reducing waste. Among the creative functions that government may and in some instances does perform there might be developed a simplified system of legal formalities in real estate transactions, educational work in the interest of the most economic and most attractive building, the maintenance of information and experimental bureaus on matters of construction, the use of public funds in the promotion of easy financing of wage-earners' homes, the granting of exemptions from taxation of especially desirable buildings below certain values. A more general recognition of these possibilities of governmental work is necessary and unless an organized effort in this direction is made, government in building operations will remain synonymous with restriction, control and limitation of business enterprise. There is no doubt as to this point of view being undemocratic and uneconomical and that it needs a speedy change to the constructive, promotive and creative.

One approaches the subject of executive skilled and unskilled

labor with much hesitancy and the consciousness that the only reduction in the cost of labor can be found in increased efficiency which is indirectly a reduction in cost. Labor unions are an important factor in determining the investment required in the construction of certain buildings. Their wage interests are amply protected by their organizations but unfortunately the standard of efficiency of those connected with labor unions is frequently low and wages are in the end determined by the average efficiency of all rather than by the arbitrary standards of the few. Wages in the building trade are high and they could, with justice to all concerned, be made higher if the general standard of efficiency of the average member of the Building Trades Union were made higher. A scientific standard of efficiency in the building trade established by careful investigation would lead to a saving in the cost of construction and an increase in the average wages in the building trade.

To summarize our statement concerning labor in the broadest sense we may say "that a reduction to a minimum of the non-creative labor, a general recognition of the financial value of architectural planning and administration, a change from a non-creative and restrictive to a creative point of view of governmental functions in building affairs and a rise in the standard of efficiency of the building trades," will meet the needs of the labor problem in the field of building in general and home building in particular. Such a program is consistent with modern tendencies and is based upon concrete and ascertainable facts.

#### CAPITAL

The financing of building enterprise is justly considered as a very potent factor. We have hinted at the complicated and costly machinery connected with the securing of capital to be used in the construction of buildings when the owner is not prepared to meet immediately the entire cost. The most burdensome expense in the securing and use of capital is to be found, however, in the interest that must be paid for its use. The rates paid vary from  $3\frac{1}{2}$  per cent, on very rare occasions, to as high as 8 per cent per year. The ultimate owner or user of the structure must pay this interest which in the end must be charged to the total cost. This being the case first mortgages are seldom paid up by the moderate owner and the



estimate of the meager proportion of families occupying their own homes must be still further reduced if it is to give an accurate conception of absolute ownership. The annals of the struggle of small owners against loss of ownership due to high rates of interest paid upon loans form a sad chapter in the history of thrift. The state and the municipalities have made no move to furnish capital for the building of homes. Insurance companies, banks and financial institutions use local deposits in foreign lands because of the larger returns they bring. To counteract this evil, Germany is now imposing upon insurance companies, saving banks, etc., well defined requirements compelling a minimum per cent of the capital to be used locally and at a fixed rate of interest. The bulk of this local investment is used for housing purposes.

The municipalities and the state can secure money at a low rate of interest which with the addition of the cost of manipulating these public loans could still assist the modest builder to secure necessary capital at a much lower rate than he pays under present conditions. The increased possibility for securing such funds would reduce the non-creative investment and would afford the community taxable values that are being retarded because of the lack or high cost of capital.

In connection with the securing of capital it should also be added that the obnoxious practice of many banks and loan associations of lending money only upon completed or almost completed building places the investor at the mercy of the speculative builder who builds for the market without individuality, and without regard to durability or fitness to environment.

#### MAINTENANCE

It is a well known fact that the difference in the cost of construction between the present day temporary building and the higher type of permanent construction is much below the difference in the actual return on the investment when quality and length of service are considered.

If a house, because of its solid construction, yields a continuous return for fifty years with a small maintenance cost and a flimsy structure yields a continuous return for twenty years with a high maintenance cost, it is clear which is preferable as far as the individ-

ual investor is concerned as well as from the point of view of the community as a whole. In the construction of buildings, however, immediate needs seem to be paramount and the maintenance cost is wholly overlooked. A clear vision of the economic relationship between maintenance cost and length of service as related to initial investment is still wanting.

With the savings made possible by a scientific adjustment of the relationship between the various elements of cost, and the elimination of non-creative charges, greater durability could be secured. The saving in the natural resources would have its effect upon the price of materials and a greater freedom in the use of durable elements would result.

An element of maintenance cost that has received considerable attention in recent years and which is slowly making itself felt among thinking men is taxation of land values and improvements. We cannot here enter into a detailed discussion of the principles of taxation and the best methods to be adopted. A tax reform movement that inspires confidence is now finding expression throughout the country and a solution is bound to come within a generation. We cannot refrain, however, from mentioning that monstrous system of double taxation which places a tax upon full values of mortgaged property and upon the mortgages themselves. By this system the man who is poor and must borrow in order to obtain a home is fined for his poverty.

In the foregoing pages we have outlined briefly the main factors of cost and have endeavored to point out the relation between creative and non-creative labor and investment.

The housing problem has been variously defined as one of land values and land use, or as a question of credit and loans, transportation, congestion and birth rates. All these are unquestionably important factors in controlling the housing situation throughout the world. Fundamentally, however, it is determined by the relation that exists between creative and non-creative work in the home building industry. Eliminate waste and center the largest possible share of the investment in the creative elements of the building and the housing problem will be solved both economically and esthetically.